

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TAKAYUKI HATASE

Appeal No. 1999-2794
Application No. 08/597,035

HEARD: OCTOBER 9, 2001

Before HAIRSTON, KRASS, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 and 3-11, which are all the claims remaining in the application.

We reverse.

BACKGROUND

The invention is directed to an image scanner utilizing a shift register for receiving charges stored in photosensitive elements, and supplying the charges to an output. Claim 1 is reproduced below.

1. An image scanner comprising:

a photosensitive element array having a plurality of photosensitive elements, arranged in a primary scanning direction from a first end to a second end, for being exposed to light from an object to accumulate therein a plurality of charges respectively;

a shift gate for receiving a transfer command signal and for receiving said plurality of charges accumulated in said plurality of photosensitive elements and simultaneously transferring said plurality of charges in response to the transfer command signal;

a shift register for receiving said plurality of charges simultaneously transferred from said shift gate, and sequentially outputting said plurality of charges one by one, starting from one of the plurality of charges accumulated in one of the plurality of photosensitive elements which is disposed at said first end; and

transfer command signal output means for supplying said transfer command signal to said shift gate at variable generation intervals of time in accordance with a length of said object in said primary scanning direction.

The examiner relies on the following references:

Nakajima et al. (Nakajima)	5,033,102	Jul. 16, 1991
Hosokawa	5-37861	Feb. 12, 1993
(published Japanese patent application, with English translation dated Dec., 1993)		

Appellant's admitted prior art (the APA).

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Claim 1 stands rejected under 35 U.S.C. § 103 as being unpatentable over the APA and Hosokawa.

Claims 3-11 stand rejected under 35 U.S.C. § 103 as being unpatentable over the APA, Hosokawa, and Nakajima.

We refer to the Final Rejection (mailed Apr. 9, 1998) and the Examiner's Answer (mailed Jan. 20, 1999) for a statement of the examiner's position and to the Brief (filed Nov. 19, 1998) and the Reply Brief (filed Mar. 19, 1999) for appellant's position with respect to the claims which stand rejected.

OPINION

The examiner sets forth the section 103 rejection of claim 1, as being unpatentable over "Applicant's prior art Fig.12 in view of Hosokawa," on pages 3 and 4 of the Answer. "Hosokawa...may not have explicitly disclosed a 'transfer command signal' and a means to generate the signal, but such a signal is inherent in the Hosokawa...system in order for the system to function efficiently." (Answer at 4.)

Appellant argues (Brief at 6-10) that none of the embodiments of Hosokawa are disclosed as including a "transfer command signal output means," as required by instant claim 1. Appellant further argues (Reply Brief at 1-3) that Hosokawa is directed to field angles related to television standards, and has nothing to do with the length of a scanned

object in a primary scanning direction, contrary to the claimed "transfer command signal output means."

We find appellant's arguments to be persuasive. Appellant points out (Brief at 8) that the claim 1 "transfer command signal output means" refers to structure enabling a vertical shift -- from the shift gate to the shift register -- rather than a horizontal shift out of the shift register. Hosokawa's teaching that the frequencies at the horizontal transfer sections 502 and 505 (Fig. 1) do not have to be equal, as noted on pages 4 and 9 of the Answer, is inapposite to the requirements of instant claim 1. Additionally, appellant's arguments in the Reply Brief are well taken. Hosokawa is directed to a different problem from object scanning. We do not see, on this record, how the Hosokawa reference might have commended itself to an artisan having knowledge as represented by appellant's Figure 12, such that the combined teachings would lead to the subject matter of instant claim 1. We therefore do not sustain the section 103 rejection of claim 1.

For the subject matter of instant independent claim 7, the examiner adds the teachings of Nakajima to the combination of the APA and Hosokawa. The examiner refers (Answer at 5-7) to the index levers 14 in place on an image reader, which are used in defining a valid area EB (Nakajima, Fig. 3) and invalid areas EA and EC. "The examiner reads the [in]valid area EA and EC as containing the subplurality of photosensitive elements which are not exposed to light(shaded)." (Answer at 6.) The examiner reiterates, in the sentence bridging pages 11 and 12 of the Answer, and at page 15, that

image sensor 27 (Nakajima, Fig. 2) receives light from valid image areas, but not from invalid image areas.

Appellant argues (Brief at 13-14) that image sensor 27 is not shaded or "blocked" from the invalid areas. In particular, appellant quotes a section of Nakajima (Reply Brief at 3) that is deemed to disclose that no blocking of light occurs.

Our interpretation of the reference is in accord with appellant's. Nakajima, at least at column 6, lines 8 through 15, clearly indicates that image sensor 27 receives light from the invalid image areas. Moreover, the examiner has not pointed out any structure in Nakajima that might perform the function of "blocking a first plurality of photosensitive elements from among said plurality of photosensitive elements," as required by instant claim 7. We therefore do not sustain the rejection of claim 7, nor the rejection of claims 8 and 10, depending from 7. We cannot sustain the rejection of the claims for the additional reason that we conclude that the basic combination of the APA and Hosokawa is not well founded, as previously noted herein.

The requirements of instant independent claim 9 include "sequentially outputting a first subplurality of charges from among said plurality of charges from said shift register one by one," and "forcibly erasing a second subplurality of charges from among said plurality of charges remaining in said shift register." The examiner puts forth the position that Nakajima inherently must have a "reset means" for efficient operation. (See, e.g., Answer at 14.) Appellant contests the examiner's finding of inherency (Brief at 15).

We note that, consistent with appellant's position, the instant specification does not depict prior art CCD cameras (e.g., Fig. 12) as having a "reset means." We compare instant Figure 12 with appellant's invention, which includes the reset circuit 62 as shown in Figure 10.

Our reviewing court has set out clear standards for establishing inherency.

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."

In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)

(citations omitted).

Appellant having contested the finding of inherency, and absent evidence in the record establishing that a "reset means" is "necessarily present" in the applied prior art, we cannot sustain the rejection of claim 9, nor that of dependent claim 11. The Office's burden in establishing inherency has not been met in the instant case. Finally, we cannot sustain the rejection of claims 9 and 11 for the additional reason that the basic combination of the APA and Hosokawa is not well founded, as previously noted herein.

CONCLUSION

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The rejection of claims 1 and 3-11 is reversed.

REVERSED

KENNETH W. HAIRSTON
Administrative Patent Judge

ERROL A. KRASS
Administrative Patent Judge

HOWARD B. BLANKENSHIP
Administrative Patent Judge

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